State CIO
Agency IT Plans
2007 – 2009 Biennium

Instructions for the Preparation and Submission of Agency IT Plans

July 2006

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I. Purpose and Background

The purpose of this document is to present the template and associated instructions for the preparation and submission of agency IT plans. G.S. 147-33.72B mandates that each agency submit its technology plan to the State CIO by October 1 of each even-numbered year. The underlying legislation also requires ITS to consult with and assist agencies in the preparation of their plans. The format of agency IT plans was developed in meetings and discussions with agency CIOs.

II. Template Instructions

The information below offers the template for the agency IT plans as agreed to in discussions with agency CIOs. Suggestions and considerations are provided for each section.

Chapter 1 - Departmental/Agency Strategic Business Initiatives and Major Business Requirements

This may include: a description of agency business vision (where it is, where it is going, what it wants to be, how it plans to get there, etc.); explanation of agency mission; listing of key business goals and objectives; summary of governmental mandates/priorities; and/or statement of statutory/compliance mandates. These make up the business strategy that IT must enable or support.

A goal of an IT plan is to improve IT's alignment with the overall business strategy and objectives of the enterprise. Ideally, an IT plan should explain: 1) IT's role in the enterprise, 2) the value IT needs to deliver in order to support the business goals and objectives of the enterprise, 3) the actions IT will take to deliver this value, and 4) the operational and capital investments needed to support this effort.

Agency business leaders and managers should work in a joint, interactive, and collaborative manner with IT executives and representatives to achieve mutual understandings of and shared accountabilities for major IT investment decisions. While IT is responsible for identifying and advising business on the potential for using technology to improve agency mission performance, increase operational productivity, enhance citizen services, and accomplish governmental initiatives; business has the ultimate responsibility for selecting and prioritizing IT investments.

Chapter 2 - Requirements for Transitioning Existing IT Activities/Resources

Current projects

From an analysis of the current projects portfolio, determine projects that require changes in priorities, funding needs, staffing resources, schedules, scopes, etc. This analysis should identify needed changes in the anticipated sources and uses of funds and personnel that could lead to new IT initiatives, with associated expansion budget or other funding requests. Moreover, new initiatives/projects must be compatible with the already committed staffing and other resources and the schedules, prerequisites, and dependencies of the present project portfolio.

Applications

From an analysis of the current applications portfolio, develop a management migration plan (called "roadmap" in the application portfolio management tool) for each application. Future intentions may include, retirement without replacement (elimination), retirement with replacement, consolidation with application(s) performing similar business functions, modernization/enhancement, or on-going normal maintenance.

Applications that satisfy a significant portion of the business function, are on standard platforms that deliver high-quality service, continue to be supported by vendors, are architecturally acceptable, and require available skill sets may not need additional funding for reengineering or replacement projects. However, applications that no longer provide sufficient business value, are technically obsolete, run on non-standard platforms, are costly to maintain or operate, or use declining or irreplaceable skills should be modernized or retired. Applications no longer mission critical, no longer supporting high-value business processes, or offering functions and capabilities duplicative with others are candidates for consolidation or elimination.

The overall intents are to: a) justify each application (save money by eliminating or consolidating those not needed or not providing adequate value for dollars spent); b) rationalizing the application portfolio by targeting maintenance, enhancement, and replacement funding to achieve the most strategic value for the investments; and c) renovate or retire/replace those applications no longer cost-effective or risk acceptable. Ideally, appropriate and wise management of applications should generate savings that can be used for new investments that provide more value to the state's citizens.

Instructions for analyzing applications and developing roadmaps can be found in the document titled APM Analysis – Getting Started under APM Tool Usage at http://www.scio.state.nc.us/PortfolioManagementInitiative/APM.asp.

Infrastructure assets

From an analysis of the inventory of infrastructure assets (computing, storage, and communications/networking equipment), determine needs for refreshments, upgrades, replacements, additions, etc. to meet security, reliability, and other requirements. The general rule for spending on infrastructure is to be cost-sensitive and economical, while meeting business needs, service levels, transaction growth, disaster recovery requirements, etc. The preparation for participation in the statewide consolidation effort may be an important consideration for some agencies.

Operations/IT management

From an assessment of the current policies, processes, and procedures/practices for the management of IT, determine needed changes/improvements in key areas. Areas to consider include: budgeting and investment justification and selection; project management and delivery; applications management; infrastructure assets management; internal agency consolidation plans and progress in the preparation for statewide consolidation of infrastructure assets; purchasing, contract development, and vendor management; security management; information and data management; service management; disaster recovery and business continuity; and technical architecture.

The General Assembly expressed the need for the better planning, budgeting, and management of IT in state government, by the ratification of SB 991 in July 2004. Even though the legislation assigned additional duties to the State CIO, agencies retained broad responsibilities and accountability for their management of IT. The State CIO has implemented tools, staffing, and processes to assist agencies and his office to meet these expanded expectations. These include the establishment of the statewide EPMO, Security Office, and Purchasing; the implementation of the portfolio management tool; the implementation of ITIL at ITS; the upcoming purchase of an asset management tool; and the construction of a second data center.

The intent of this section is to identify new or expanded tools, processes, and staffing necessary for agencies to improve their management of IT. Ideally, these would build upon those provided by the State CIO's initiatives and supporting tools, procedures, and personnel.

Human resources

Determine staffing resource requirements, training needs, and uses of supplemental staffing and identify deficiencies in these areas. This is accomplished by assessing the skills, experiences, numbers, capabilities, and availabilities of state personnel; considering the appropriate use of vendor supplemental staffing; and identifying personnel requirements. The progression for the replacement of outside contractors may be an appropriate consideration.

Chapter 3 - IT Specific Economic-Driven Requirements or Opportunities

From assessments of IT resources (staffing, computing, storage, and network/communications), processes, and management practices; identify changes that will improve the economics of providing IT services to the agency. Opportunities for standardizations, consolidations, and complexity reductions (simplifications), and potentials for other efficiencies or productivity improvements should be considered. These actions may not improve business processes or enhance business operational performance; however, they should make the IT organization more cost-effective, especially by enabling cost savings or cost avoidance. Reliability, recoverability, and service level improvements may result.

Chapter 4 - IT Initiatives Developed From and Aligning With Plan Drivers

The IT initiatives below should be derived from one or more items (called plan drivers) in Chapters 1 thorough 3 above. An initiative may be high-level and broad-based so that it covers multiple items above, or it may be more targeted to address only one or part of an item. Likewise, a single initiative may lead to multiple expansion budget (or other funding) requests and projects, or there may be a single expansion budget (or other funding request) and associated project for multiple initiatives.

Initiatives are expected to be at a summary level of information. More specific information will be required for expansion budget requests and/or project approvals (if requested funding is appropriated or obtained from other sources, such as federal grants). (Instructions for the preparation of expansion budget requests are contained in another document on the State CIO's Web page at http://www.scio.state.nc.us/.) Look under Hot Topics at the upper right hand margin of the page.

The underlying concepts of investment portfolio management may be useful in analyzing and prioritizing IT initiatives and investments. The intent is to select IT investments that best support agency operations and service delivery. One way to accomplish this is to evaluate each alternative initiative/investment against relevant criteria, such as financial returns (revenue generation and/or cost savings); business impact (political benefits, public service improvements, governmental initiatives/imperatives, regulatory compliance, etc.); risk acceptability; and technical architectural fit. Ideally, each priority initiative/investment should align with the agency's business strategy and enable/support key business goals and objectives. Implementation and operating and maintenance costs, affordability, achievability within staffing and other resource constraints, and compatibility with other initiatives/projects should be considered.

The intent of IT initiatives is to translate agency business strategies and goals into tangible activities (usually projects) that can be executed to deliver the desired business objectives and benefits.

For each IT initiative, include the following content:

- **Name/Title**

- **Summary description** - What will be done.

- **Major objectives to be achieved and benefits/value to the agency/state to accrue** - Why it is being done. The tie or alignment to the plan driver(s) in chapters 1 through 3 above should be included here.

- **Timeframe** - When it will be done – in general terms, such as start quarter/year and end quarter/year.

- **Relationship with other agency initiatives/projects** - In today's business challenges and technical environments, IT initiatives, funding requests, and projects rarely stand alone, rather they are components of an integrated whole that covers a bigger picture. Therefore, interdependencies with other endeavors are important factors and considerations for approaches, scopes, benefits, reasons, schedules, etc. of individual efforts.

- **Relationship with statewide initiatives/projects** - The State CIO's IT Plan for the 2005-2007 biennium (http://www.its.state.nc.us/) explains the two major concepts for the management of IT in state government (enterprise management of common shared technical infrastructure and technical services and a framework for the management of IT investments) and describes the seven initiatives to achieve these. The initiatives are:

    - Consolidate common shared technical infrastructure and technical services for greater savings and better operational performance.
    - Perform strategic planning for identifying best IT investments.
    - Manage projects for superior results.
    - Provide measurable, performance-based delivery of services.
    - Manage legacy applications (installed department business/program software) for reduced risks of failure and optimized life-cycle benefits and costs.
    - Develop a proficient and appropriately staffed IT workforce.
    - Sustain the IT Enterprise Fund.

In addition, other key priorities for ITS have been identified, and these include the implementation of the ITIL service management best practices at ITS, the forthcoming purchase of a comprehensive statewide asset management system, and the construction of a second data center.

- **Order-of-magnitude costs** - As a minimum, costs should include agency internal staff and implementation plus five-years of O&M. Although a single number (implementation plus five-years of O&M) will be sufficient for submission to the State CIO, agencies at their option, may desire to include the following additional information:

  - Sources of funding (e.g., state, federal, local, grant, etc.).
  - Types of funding (i.e., one-time or recurring).
  - Uses of funding (e.g., internal staff, outside consultants, hardware, software, etc.)

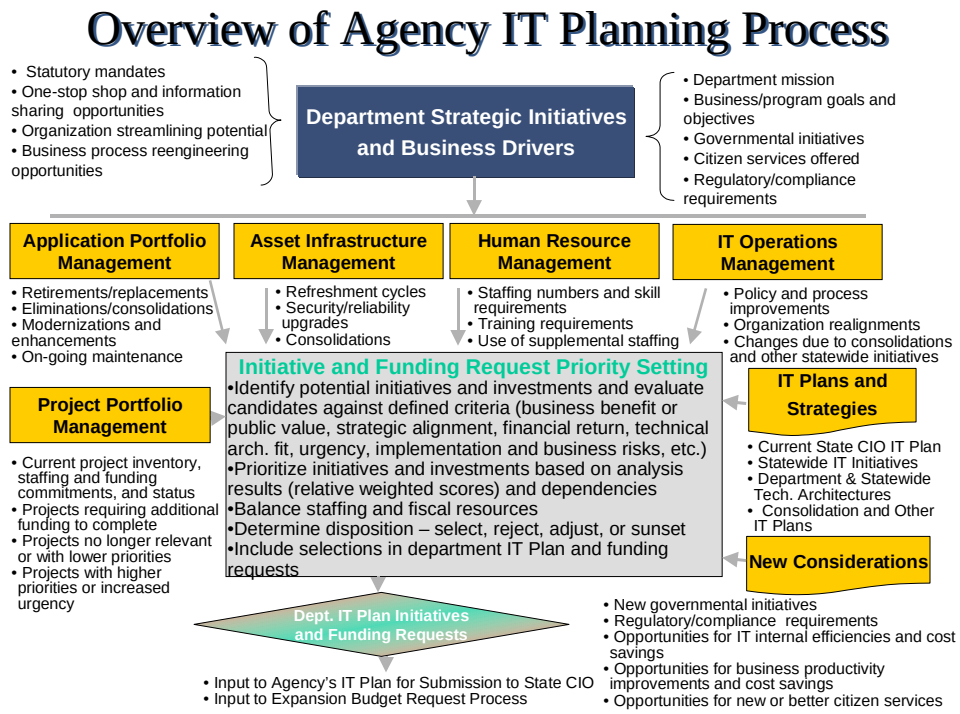
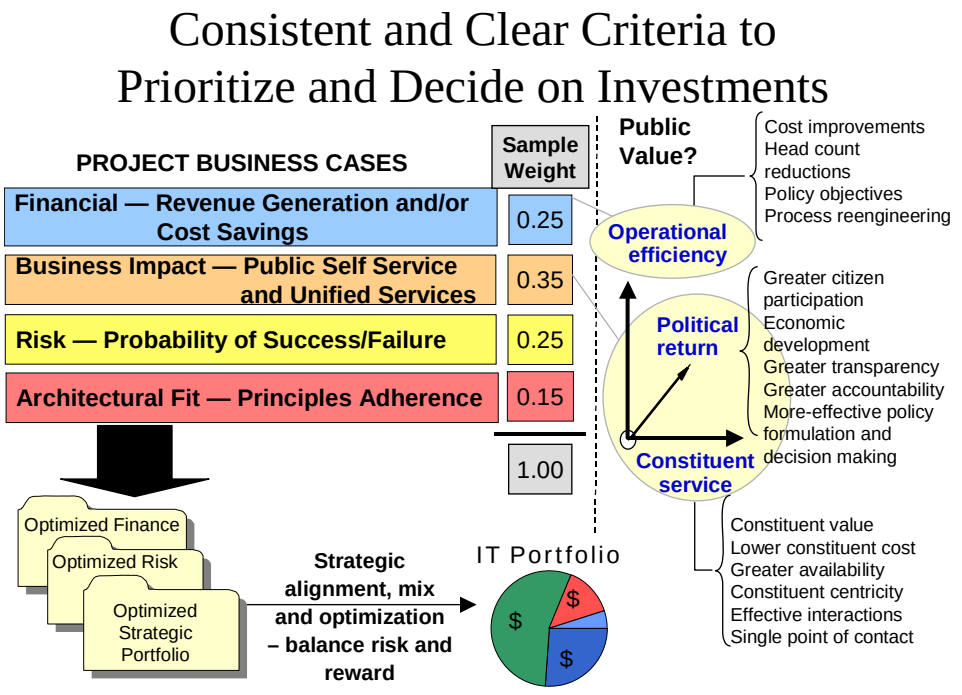
III. Additional Information

Two important points for the preparation and submission of agency IT plans are:

- The plans are not static; rather, they should be dynamic and updated as need to reflect the realities of the funding, technical, political, and agency IT management and business environments. Significant modifications to agency business strategies, funding commitments, project progress etc. that impact current initiatives or create new ones should be reflected in revised versions of the plans.

  New or revised plans must follow the same workflow and approvals as the original submission, with agency CIO and CFO approvals/signoffs (described below). The original and revised plans will be maintained in the portfolio management software tool, so that a historical record is available.

- The reviews and approvals by ITS staff for expansion budget requests and project approvals and monitoring will include reviews of agency IT plans, especially the referencing of IT initiatives described in the plans. Therefore, the initiatives in agency IT plans should provide the rationale and background for future technology investments that require expansion budget requests and/or project approvals.

Agency IT plans must be submitted to the State CIO using the workflow of the portfolio management tool. The agency CIO and financial officer must approve the IT plans before submission. The workflow and detailed instructions are given in the IT Plan Submission Instructions document, which is on the Web sites.

Key concepts for the development of agency IT plans and the selection of IT initiatives are highlighted in the two charts below.